

### REMARK

Applicant respectfully requests reconsideration of this application. Claims 1-20 remain in the application. No claims have been canceled.

### **Rejected Claims under 35 U.S.C. 103**

Claims 1-20 were rejected under 35 U.S.C. 103 as being unpatentable over Aleksic et al. (U.S. Patent No. 6,175,368).

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). (MPEP ¶ 2143.03).

Independent claims 1, 7, 12 and 15 of the present application include limitations not suggested or taught by Aleksic. As a result, these claims are patentable over Aleksic.

Specifically, independent claim 1 includes the element of “interpolating the first and second vertex angle coordinates to provide first and second angle coordinates for each pixel in a polygon, the first and second angle coordinates representing a direction of the vertex vector at the pixel.” (Emphasis added.) Independent claim 18 includes the element of “interpolating the pairs of vertex angle coordinates to provide first and second angle coordinates for the pixel.” (Emphasis added.)

However, the Examiner admits, in the Office Action dated September 18, 2001, that “Aleksic fails to disclose interpolating angle coordinates.” The Examiner asserts:

Aleksic discloses in col. 3, lines 51-61, the object parameters, which include the physical coordinates and color data at the vertexes of the objects and or blending information. It would have been obvious to one of ordinary skill in the art at the time of the invention that Aleksic allows for object parameters including physical coordinates and thus inherently allowing for said angle coordinates to be given as a physical coordinates. Aleksic further discloses blending of vector information and thus inherently suggesting interpolating of color information.

(Emphasis added.) The Examiner therefore asserts above that, in light of Aleksic, it would have been obvious to: (1) give angle coordinates as physical coordinates, and (2)

interpolate color information. However, even if these assertions are accepted, nothing in the above assertion leads to the conclusion that it would have been obvious in light of Aleksic to interpolate angle coordinates, which the Examiner has admitted Aleksic does not disclose. The mere giving of angle coordinates as physical coordinates does not make it obvious to interpolate those physical coordinates. Additionally, the mere interpolating of color information does not make it obvious to interpolate angle coordinates.

Therefore, claims 1 and 18 contains elements not suggested by Aleksic. Consequently, these claims are patentable over Aleksic.

Independent claim 7 includes the element of “a rendering engine to . . . estimate pairs of angle coordinates and perturbation coordinates for each pixel in the polygon from the pairs of vertex angles and perturbation values, respectively . . .” (Emphasis added.) Independent claim 12 includes the element of “generating color values for a sample of normal vector orientations, each color value being associated with one or more scaled angle coordinates representing a corresponding normal vector orientation.” (Emphasis added.) Independent claim 15 includes the element of “means for converting the plurality of vertex angles for each polygon to a plurality of angle coordinates and perturbation coordinates for each pixel in the polygon.” (Emphasis added.)

However, the Examiner admits, in the Office Action dated September 18, 2001, that “Aleksic fails to disclose angle coordinates.” The Examiner asserts:

Aleksic discloses in col. 3, lines 51-61, the object parameters, which include the physical coordinates and color data at the vertexes of the objects and or blending information. It would have been obvious to one of ordinary skill in the art at the time of the invention that Aleksic allows for object parameters including physical coordinates and thus inherently allowing for said angle coordinates to be given as a physical coordinate.

(Emphasis added.) The Examiner therefore asserts above that, because Aleksic discloses physical coordinates, it would have been obvious to give angle coordinates as a physical coordinate.

Aleksic does not use the term “physical coordinates” to represent vector orientations. Aleksic uses the term “physical coordinates” to represent the spatial locations of polygonal vertices (see column 4, lines 47-54, especially “[v]ertexes 2 and 3 contain physical coordinates  $x_2$   $y_2$ ,  $z_2$ , and  $x_3$   $y_3$ ,  $z_3$ ”) rather than the orientations of vectors normal to these vertices. Aleksic even uses the term “physical coordinates” to represent a part of the basic information used for displaying two dimensional images (see column 1, lines 27-34). The mere mention of physical coordinates by Aleksic does not lead to the conclusion that these physical coordinates represent the same information that angle coordinates represent (namely, vector orientations).

Therefore, claims 7, 12 and 15 contains elements not suggested by Aleksic. Consequently, these claims are patentable over Aleksic.

Claims 2-6, 8-11, 13-14, 16-17, and 19-20 depend from the independent claims discussed above, and therefore include the elements of the referenced independent claims. For at least this reason, claims 2-6, 8-11, 13-14, 16-17, and 19-20 are patentable over Aleksic.

Applicant makes no admission that Aleksic, filed March 24, 1998, represents effective prior art against the present application, filed July 17, 1998, and Applicant reserves the right to swear behind Aleksic in the future.

*Conclusion*

Applicant respectfully submits that the rejections have been overcome by the remarks, and that the claims are in condition for allowance. Accordingly, Applicant respectfully requests the rejections be withdrawn and the claims be allowed.

*Invitation for a telephone interview*

The Examiner is invited to call the undersigned at 408-720-8300 if there remains any issue with allowance of this case.

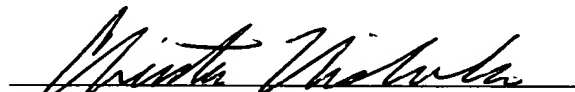
*Charge our Deposit Account*

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,

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Date: APRIL 18, 2002



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